Remarks

The applicants appreciate the examiner's consideration of the application and request reconsideration and allowance based on the preceding amendments and these remarks.

The examiner rejected some of the claims as anticipated by McCullough, and the rest as obvious over McCullough, Tata, and in some respects, Dehaine.

The applicants have added the subject matter of claim 4 to claim 1. The remaining amendments were made for 112-type issues, in order to make the claims more consistent.

Claims 1 and 13 are clearly patentable in light of the references. The examiner had rejected claim 4, stating that "Tata et al. teaches that a resilient member (Fig. 5, #14" bows upward, Col. 4, line 21) located within the clamping member through-hole in which the heat-conducting member is located, for urging the heat-conducting member into thermal contact with the electrical device. It would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the coupling system of McCullough et al. with that of Tata et al. by adding a resilient member for the purpose of to allow the clamping member to be flexible."

The applicants disagree with the Examiner's conclusions regarding the teachings of the prior art, believe that the combination does not teach claim 4 (now claim 1), and further believe that the combination is improper under the law of 35 U.S.C. section 103.

Claims 1 and 13 have a clamping member adapted to push the one or more electrical devices against the substrate, to assist in electrical connection between the one or more electrical devices and the substrate, the clamping member defining a through-hole leading to each electrical device. The resilient member is located within the clamping member through-hole. McCullough obviously does not have a resilient member in the through-hole of the clamping member, as acknowledged by the Examiner. However, Tata does not have a clamping member,

and does not have a resilient member located in a through-hole of any of its members. For these reasons, Tata does not disclose any structure that can be combined with McCullough to accomplish the invention of either claim 1 or claim 13.

Tata teaches an adaptor 12 that holds the chip in place and couples the heat sink to the chip. Although wall 14" bows upwardly, wall 14" is not located within through-hole 26'. In fact, as wall 14" essentially defines the through hole, wall 14" cannot under any circumstances be located within the same through hole it defines. It is thus absolutely clear that Tata does not, and indeed could not, disclose a resilient member located in the through hole through which a heat-conducting member extends. Accordingly, the combination of the two references does not teach the "resilient member" element of the claims. The claims thus, as a matter of law, are patentable over the references.

A separate ground for patentability over these two references is based on the impropriety of combining the references to teach the invention. Tata in fact is not relevant to the problems solved by the invention, as Tata does not teach or suggest a clamping member as in claims 1 or 13. The applicants understand that the examiner is not citing Tata for a teaching of a clamping member. However, the problem solved by the present invention is effective heat dissipation from a chip that is clamped down by a clamping member that, obviously, must overly the chip in order to clamp it down. Tata does not at all relate to a situation in which a chip is clamped down. Rather, Tata is directed to a chip/heat sink combination, with no mention of clamping of the chip. The fact that the Tata chip has extending electrical leads (as seen in the side view of Fig. 2, for example) establishes that the chip is meant to be soldered (permanently connected) to a circuit board rather than clamped onto the circuit board. Accordingly, Tata does not suggest a clamping member. Indeed, since Tata uses adaptor 12 to hold the chip, it could not by any

means use a clamping member. As a result, Tata cannot be used to suggest any sort of resilient member in combination with McCullough.

As to McCullough, the reference teaches accomplishing intimate contact between the heat-conducting member and the chip by using mating threads that allow proper placement of the heat sink relative to the chip (pressed against the top of the chip). In order for the threaded heat sink to properly couple with the threaded through-hole, the threads must fully engage. There is no room for, and indeed no purpose for, a resilient member in McCullough. In fact, inserting a resilient member into the through-hole of McCullough would directly interfere with the critical function of the inter-thread engagement. As a resilient member would affect the utility of McCullough, the law does not allow the combination of a resilient member from any reference with the McCullough arrangement.

For these reasons, the claims are patentable over the references. Each of the Examiner's rejections have been addressed. Accordingly, it is respectfully submitted that the application is in condition for allowance. Early and favorable action is requested.

If for any reason this Response is found to be incomplete, or if at any time it appears that a telephone conference with counsel would help advance prosecution, please telephone the undersigned in Westborough, Massachusetts at (508) 898-1501.

Respectfully submitted,

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